

Preparing Workers for Mid-Career Success



Joon Suh
Former Senior Policy
Advisor, Economic
Program



Alicia Mazzara
Policy Advisor, Economic
Program

When Michigan launched *No Worker Left Behind*, an initiative to train 100,000 workers between 2007 and 2010, unemployed Michiganders flocked to the program. What state leaders didn't realize was that many applicants simply weren't ready for continuing education. One in three working-age adults were deficient in basic skills, and a stunning 44% of all Michigan adults read below a sixth-grade level. ¹ "It's tragic," said Margaret Williamson, executive director of ProLiteracy Detroit, which provides adult reading instruction. "You see them, they come in to us after they've been to Work First and they're so dejected because they cannot even get into a job training program." ²

There was once a time in this country when a high school diploma and a willingness to work hard was enough to secure a middle class job and comfortable life. Forty years ago, only 28% of jobs were held by those with postsecondary education. ³ But, in our foundational report, *Ready for the New Economy*, we showed that as our economy changes as a result of globalization and technology, so do the types of jobs available—as well as the skills necessary to attain those jobs. To ensure Americans are ready for this change, policymakers

must understand that solid-paying jobs now require far more knowledge acquisition and mid-career learning than in the past. In this idea brief, we look at one aspect of that—whether American adults already in the workforce have the basic skills needed to get ahead—and propose the creation of *mid-career Prep for Success academies*. These would provide free, effective, and flexible developmental education classes to help any adult succeed in this new 21st century economy.

The Problem

Economic forecasts predict that an increasing number of jobs will require some postsecondary education.

- 19 of the 30 fastest growing occupations would require some form of post-secondary education for entry. ⁴
- Occupations requiring an associate's degree will grow by 17.6% between 2012 and 2022, and occupations requiring a post-secondary certificate will grow by 15.6%. ⁵
- Jobs requiring a bachelor's degree are also projected to grow by 12%. ⁶

The U.S. Census Bureau reports only 58% of working age adults have at least some level of college education, yet the Georgetown Center for Education and Workforce predicts that by 2020, a full 65% of job openings will require at least some college. Amid that growth, the professions available to those without post-secondary education and training—as well as any hope for wage gains—are disappearing.

Among these trends, however, is the fact that many Americans lack the basic academic preparation to make post-secondary education possible, and the market isn't set up to serve them well.

First, many adults lack the basic skills required for training.

Employers are increasingly focused on finding the technical skills that are largely available in post-secondary settings. But they are struggling. According to employer surveys,

almost two in five global employers reported difficulty filling jobs with the right talent; and, among American employers, nearly half say these talent shortages have a medium to high negative impact on their businesses.⁷ Among the top reasons they report having difficulty filling these jobs is that applicants lack the technical skills and competencies that the available jobs require.

This lag in skills is also reflected in data from the Survey of Adult Skills (an international assessment that tests numeracy, literacy, and problem solving in the world's 20 most advanced economies) which found U.S. adults are far behind our international competitors:⁸

- In literacy, the United States ranked 14th out of 20;
- In numeracy, the United States ranked 18th out of 20; and,
- In problem solving, the United States came in 15th out of 17.⁹

While troubling, that shouldn't be a surprise. First, not enough adults have a post-secondary degree. As mentioned above, nearly 60% of adults over age 25 do not have a two or four year degree. Minorities are especially likely to lack a degree: almost 70% of Black adults and close to 80% of Hispanic adults over 25 do not have a two or four year degree. Second, for those who do make it through college, the quality they are getting for their degree is often not sufficient. A shocking 36% of college graduates will demonstrate no meaningful gains in critical thinking.¹⁰ And, third, for adults that have learned the appropriate skills in high school or college, those skills may have atrophied a decade or two out of school.

The path to closing the training and skills gap has conventionally been provided by community colleges and four-year universities, including remedial (or “developmental”) instruction for those lacking basic preparation. The need for this remedial support is greater than observers and policymakers realize. Approximately 40%

of first-year college students reported taking developmental classes over the course of their education, but this share can climb as high as 70% depending on the school. Remediation is also not limited to academically underperforming students, nor is it necessarily the sole purview of poor performing high schools. In fact, students hailing from all income groups, races, and geographic areas are placed into developmental courses.

This is also a path traveled by mid-career adults. Over the last three decades, the number of people over the age of 30 that have enrolled in college to further develop their skills has more than doubled; today there are 5.6 million adults over the age of 30 in 2- or 4-year colleges.¹¹ Eighty percent of them are attending on a part-time basis.¹² And many of these students would likely require a review of fundamental concepts. There are also 64 million workers between the ages of 25-64 who do not have a postsecondary degree, and many of these workers could require remediation if they decide to pursue a higher education.¹³

How would you do on a college placement test?

Imagine having to take an algebra test if you haven't studied algebra in 20 years. The following are sample questions from the College Board's ACCUPLACER and American College Testing's COMPASS, two commonly used college placement tests.

Basic Arithmetic

The measures of two angles of a triangle are 35° and 45° .
What is the measure of the third angle of the triangle?

- A. 95°
- B. 100°
- C. 105°
- D. 110° ¹⁴

Elementary Algebra

Which of the following expressions represents the product of 3 less than twice x and 2 more than the quantity 3 times x ?

- A. $-6x^2 + 25x + 6$
- B. $6x^2 + 5x + 6$
- C. $6x^2 - 5x + 6$
- D. $6x^2 - 5x - 6$
- E. $6x^2 - 13x - 6$ ¹⁵

Reading Comprehension

All water molecules form six-sided structures as they freeze and become snow crystals. The shape of the crystal is determined by temperature, vapor, and wind conditions in the upper atmosphere. Snow crystals are always symmetrical because these conditions affect all six sides simultaneously.

The purpose of the passage is to present:

- A. a personal observation.
- B. a solution to a problem.
- C. actual information.
- D. opposing scientific theories.¹⁶

Second, while the remediation system keeps taking on students, it fails to build and sharpen modern workforce skills.

While many Americans are tapping into developmental courses, the outdated remediation system isn't set up to serve them as effectively as possible. Part of this stems from the fact that taking developmental courses creates a financial burden for students. Remedial education programs cost precious time and money, partly because developmental coursework does not count toward credit for a degree. Depending on the institution, students could be placed into developmental reading, writing, and math classes (including multiple levels of developmental math).¹⁷ Many students are required¹⁸ to pass these classes before moving forward with the rest of their education, thereby taking longer to graduate.¹⁹

At its most benign, these classes represent additional courses that must be paid for on the road to a degree. For students who cannot pay out of pocket, prolonging one's course of study may mean taking on more debt to cover the extra courses. Financial aid is another option, but developmental courses may not be the best use of this funding. Because some forms of aid, like Trade Adjustment Assistance, are time-constrained, students may run out of money before completing their degree. In other cases, federal financial aid is limited: for example, Pell Grants may be used for no more than 30 credits of developmental coursework.

In the worst case scenario, students take out loans for these classes but drop out before ever completing their degree. In fact, studies show that the longer it takes for a student to enter their academic program of the study, the more likely he or she is to drop out.²⁰

There are also significant concerns about the effectiveness of instructional content and delivery. Less than one in 10 community college students enrolled in remedial courses complete an associate's degree within three years.²¹ Two-thirds of students placed into remedial math and 54% of students placed in remedial reading do not even finish their developmental course sequence, let alone their degree. Men, older students, Black students, part-time students, and students in vocational programs are at particular risk for dropping out during their developmental sequence.²²

The Solution: Free, high-quality prep for success courses for adults

We propose free, high-quality *Prep for Success* courses for adults to hone basic skills so they can then succeed in community colleges or worker training programs, preferably before they lose their jobs and need re-training. From parents wanting to re-enter the workforce after raising a child to someone looking to make a career jump or change,

Prep for Success will make highly flexible and effective courses available to working adults—free of charge.

Program Design: *Prep for Success* will provide funds for states to establish a set of standardized developmental education courses using a blended learning model. Blended learning relies on traditional classroom instruction and digital or online course delivery. This method often gives the student some control over when and where they learn, making it well-suited to adult students. Because *Prep for Success* targets working adults, accelerated, modular, and/or self-paced learning strategies, flexible scheduling, and innovative uses of technology would be incentivized as part of the grant process. Funding would cover courses in basic math, reading, writing, English as a second language (ESL), and computer literacy.

States will have discretion over how to distribute the funds but would be encouraged to develop the courses through partnerships with local universities or community colleges and in consultation with local workforce development boards, labor unions, and private-sector employers. States are encouraged to develop curricula consistent with pathways to in-demand occupations as outlined in state and local plans as prescribed by the Workforce Innovation and Opportunity Act (WIOA) of 2014. States would also be encouraged to partner with community or faith-based organizations, public libraries, unions, and employers to raise awareness of the educational opportunities for workers and to ensure that classes are available in a wide variety of locations, not just college campuses.

Program Strengths: By creating career-centric, targeted courses that are partially delivered electronically, *Prep for Success* allows states to set a standardized curriculum that can be easily used by educators across the state. A standardized curriculum will also make it easier to train classroom instructors and set uniform college-readiness standards. Using electronic content also means that the curriculum can

be quickly and easily updated or modified to ensure that it reflects emerging needs.

Courses offered through *Prep for Success* could be taken as part of a developmental sequence required by a student's college, but these courses could also be used to help students prepare before even arriving on campus. For instance, *Prep for Success* could be used to prepare for college placement tests or for adults to test the waters before deciding whether to pursue a degree or certificate. Additionally, classes taken through *Prep for Success* could also build basic numeracy, literacy, ESL, or computer skills for advancement in the workplace.

PREP FOR SUCCESS: IN ACTION

Picture a 32 year-old woman who works as a cashier at a big-box retailer. She recently tried to enroll at her local community college, but a placement test indicated that her math skills needed some work. Rather than enrolling in a semester-long developmental math class, she takes a math class offered through a partnership between her employer and her local community college and funded by Prep for Success. After she finishes her shift, she heads over to a computer lab that her employer has set up in the back of the store. Her lessons are delivered via computer using software like Pearson's MyMathLab. There are no lectures; instead she works through the material at her own pace. An instructor from the local community college is present to answer questions or is available online. The course is broken up into modules, and at the end of each one she passes a test to demonstrate proficiency before moving on. This allows her to tackle the material in small, manageable chunks, and gives her a sense of accomplishment each time she masters a new concept. She can spend more time on difficult concepts and move quickly through material that she already knows. If she needs

additional help, she can turn to the instructor. Once she passes the course, she will be able to enroll in college classes and, just as importantly, pass them.))

Program Efficacy: In addition to targeted funding and innovative uses of technology, several key design components will increase *Prep for Success*' effectiveness:

1. *Strong performance measures and program evaluation.* It is critical to measure the impact and cost-effectiveness of government programs. In the case of *Prep for Success*, it will be necessary to evaluate whether developmental courses taken through the program lead to better educational and occupational outcomes for students, reduce the time and cost of getting a degree, and raise passing rates on placement tests. The federal government can play an important role by setting standardized performance measures and data reporting practices that ensure results are comparable across states. *Prep for Success* should also be subject to independent evaluations to identify program strengths and areas for improvement. In particular, *Prep for Success*' design allows for states to test out a number of innovative learning strategies. Evaluations will be critical to identifying best practices and helping states promulgate them.

2. *Standards for college readiness and course content and quality.* The need for developmental education is not solely driven by students who lack the skills to perform in college or continuing education programs. Another important factor is the absence of a college-readiness standard. Under the current system, what it means to be “college-ready” (and therefore to place out of developmental coursework) varies by educational institution. A student may be required to take developmental classes at one school, but the same placement test score at another school may be high enough to exempt them from remediation entirely. And while Common Core standards will help children currently in school, they do little for adults who have long since graduated.

The creation of *Prep for Success* is the perfect opportunity to develop a college-readiness standard that will help shape the content of developmental coursework and placement tests going forward. Minimum guidelines for course content, quality, and student proficiency could be set by local partnerships, with states having the ability to further refine their educational standards, or by the states themselves. Ultimately, the goal is to ensure that anyone who passes a *Prep for Success*-funded class is academically qualified to begin coursework at any public university or community college.

1. *Strong investment in outreach activities.* One of *Prep for Success*' core strengths is its ability to help people before they even set foot inside a college classroom. In order to reach the widest range of people who could benefit, states and localities will need to engage in outreach and educational activities that raise public awareness of the program. This funding should be used to reach individuals and to facilitate partnerships between government and educational providers, employers, unions, and community-based organizations. Then the next time a program like Michigan's *No Worker Left Behind* comes along, more people will be able to take advantage of training opportunities.

Program Cost: Researchers have estimated that the national direct cost of college remediation falls between \$3.6 billion and \$6.7 billion annually.²³ Based on expenditure data from public two-year community colleges, we estimate that it costs roughly \$1,700 per student per developmental course.²⁴ Assuming an additional 15% in administrative and outreach costs, *Prep for Success* could provide a free developmental course to 1 million adults for \$1.9 billion dollars annually.

Conclusion

As the pace of economic change picks up and the need for mid-career training becomes more urgent, we must find a way to ensure that workers can seamlessly and realistically transition into post-secondary skills development. Adults who want to go back to school need a better, faster way to bolster their academic skills and get on the path to certification or a degree, and a good job. *Prep for Success* is a vital missing piece of the skills development lifecycle, connecting high school and higher education, and giving everyone a shot at increased middle class prosperity regardless of what point they are in their career. With *Prep for Success*, millions of American workers will have a pathway into the emerging careers that will shape the new economy and the 21st century middle class, and the U.S. will be positioned to launch a skills revolution that puts no job out of reach for Americans.

TOPICS

WORKFORCE & TRAINING 62

END NOTES

- 1.** Rochelle Riley, "Time to break cycle of no skills, no jobs," Detroit Free Press, July 31, 2009. Accessed April 21, 2016. Available at: http://www.note-tlc.com/files/July31_illiteracy_freepress.pdf.
- 2.** Rochelle Riley, "Time to break cycle of no skills, no jobs," Detroit Free Press, July 31, 2009. Accessed April 21, 2016. Available at: http://www.note-tlc.com/files/July31_illiteracy_freepress.pdf.
- 3.** Anthony Carnevale, Nicole Smith, and Jeff Strohl, "Recovery: Job Growth and Education Requirements Through 2020," Executive Summary, Georgetown University, Public Policy Institute, Center on Education and the Workforce. Accessed April 25, 2016. Available at: https://cew.georgetown.edu/wp-content/uploads/2014/11/Recovery2020.ES_Web_.pdf.
- 4.** United States, Department of Labor, Bureau of Labor Statistics, "Employment Projections 2012-2022," News Release, December 19, 2013. Accessed April 25, 2016. Available at: <http://www.bls.gov/news.release/pdf/ecopro.pdf>.
- 5.** United States, Department of Labor, Bureau of Labor Statistics, "Employment Projections 2012-2022," News Release, Table 7, December 19, 2013. Accessed April 25, 2016. Available at: <http://www.bls.gov/news.release/pdf/ecopro.pdf>.
- 6.** United States, Department of Labor, Bureau of Labor Statistics, "Employment Projections 2012-2022," News Release, Table 7, December 19, 2013. Accessed April 25, 2016. Available at: <http://www.bls.gov/news.release/pdf/ecopro.pdf>.
- 7.** ManpowerGroup, "2015 Talent Shortage Survey," Report, 2015. Accessed April 15, 2016. Available at: http://www.manpowergroup.com/wps/wcm/connect/408f7067-ba9c-4c98-b0ec-dca74403a802/2015_Talent_Shortage_Survey_lo_res.pdf?MOD=AJPERES&ContentCache=NONE.

- 8.** Organisation for Economic Cooperation and Development, “OECD Skills Surveys,” Dataset. Note: search each subject area in drop down menu. Accessed April 25, 2016. Available at: <http://piaacdataexplorer.oecd.org/ide/idepiaac/>.
- 9.** Not all countries measured for literacy and numeracy were represented among those submitting data for problem solving.
- 10.** Richard Arum and Josipa Roksa, Academically Adrift: Limited Learning on College Campuses, The University of Chicago Press, Chicago, 2011, p. 36, Print
- 11.** United States, Department of Education, “Total fall enrollment in degree-granting institutions, by attendance status, sex, and age: Selected years, 1970 through 2021,” Dataset, Table 224, Institute of Education Sciences, Digest of Education Statistics, December 2012. Accessed April 25, 2016. Available at: http://nces.ed.gov/programs/digest/d12/tables/dt12_224.asp.
- 12.** United States, Department of Education, “Total fall enrollment in degree-granting institutions, by attendance status, sex, and age: Selected years, 1970 through 2021,” Dataset, Table 224, Institute of Education Sciences, Digest of Education Statistics, December 2012. Accessed April 25, 2016. Available at: http://nces.ed.gov/programs/digest/d12/tables/dt12_224.asp.
- 13.** United States, Department of Commerce, Census Bureau, “Educational Attainment of the Population 18 Years and Over, 2014,” Dataset, Data on Education Attainment, Table 1, 2014. Accessed April 25, 2016. Available at: <http://www.census.gov/hhes/socdemo/education/data/cps/2014/tables.html>.
- 14.** “ACT COMPASS Numerical Skills/Pre-Algebra Placement,” American College Testing, 2014. Accessed April 25, 2016. Available at: <http://www.act.org/content/dam/act/unsecured/documents/numerical.pdf>.

- 15.** “ACCUPLACER® Sample Questions for Students,” The College Board, 2012. Accessed April 25, 2016. Available at: <https://secure-media.collegeboard.org/digitalServices/pdf/accuplacer/accuplacer-sample-questions-for-students.pdf>.
- 16.** “ACCUPLACER® Sample Questions for Students,” The College Board, 2012. Accessed April 25, 2016. Available at: <https://secure-media.collegeboard.org/digitalServices/pdf/accuplacer/accuplacer-sample-questions-for-students.pdf>.
- 17.** Bailey et al, “Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges,” Columbia University Community College Research Center, Working Paper, December 2008. Accessed April 25, 2016. Available at: <http://files.eric.ed.gov/fulltext/ED503962.pdf>.
- 18.** Some colleges allow students to choose whether to take the recommended developmental courses. Other institutions are experimenting with different learning approaches. One notable approach combines the developmental material with occupational training in a single team-taught class, as seen in Washington State’s I-BEST program. Another approach lets students who score near the cut-off enroll in regular classes with additional academic support.
- 19.** Complete College America, “Remediation: Higher Education’s Bridge to Nowhere,” April 2012. Accessed April 25, 2016. Available at: <http://www.completecollege.org/docs/CCA-Remediation-final.pdf>.
- 20.** Complete College America, “Remediation: Higher Education’s Bridge to Nowhere,” April 2012. Accessed April 25, 2016. Available at: <http://www.completecollege.org/docs/CCA-Remediation-final.pdf>.

- 21.** Pearson Education, “Remedial Education Reform: Fixing the Gateway to Student Success, College Completion and Employability,” Briefing Paper, 2014. Accessed April 25, 2016. Available at:
<http://www.pearsoned.com/education-blog/remedial-education-reform-fixing-the-gateway-to-success-completion-employability/>
- 22.** Bailey et al, “Referral, Enrollment, and Completion in Developmental Education Sequences in Community Colleges,” Columbia University Community College Research Center, Working Paper, December 2008. Accessed April 25, 2016. Available at:
<http://files.eric.ed.gov/fulltext/ED503962.pdf>.
- 23.** Alliance for Excellent Education, “Saving Now and Saving Later: How High School Reform Can Reduce the Nation’s Wasted Remediation Dollars,” May 2011. Accessed April 25, 2016. Available at: <http://all4ed.org/press/united-states-loses-5-6-billion-providing-college-remediation-according-to-new-brief-from-alliance-for-excellent-education/>; See also: Judith Scott-Clayton, Peter M. Crosta, and Clive R. Belfield, “Improving the Targeting of Treatment: Evidence From College Remediation,” National Bureau of Economic Research, Working Paper 18457, October 2012, Print.
- 24.** We follow the cost calculation methodology used by Judith Scott-Clayton, Peter M. Crosta, and Clive R. Belfield in their working paper “Improving the Targeting of Treatment: Evidence from College Remediation.” The authors calculate the average cost of a developmental education course assuming that one three-credit course is roughly equivalent to 1/8th of a full-time year of college at a two-year public college. According to the American Institute of Research’s Delta Cost Project, the average two-year public college spends \$13,379 per full time student in 2013 dollars, including tuition. Thus, a single class would cost \$1,672 per student in 2013 dollars. Although there is some evidence that *Prep for Success* courses could cost less thanks to their reliance on technology, we do not have data on the cost of courses that utilize blended learning vs traditional courses.